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# PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

1403-20 PCT US (OPP20061491US)

Application Number

10/588,248

Filed

April 30, 2007

First Named Inventor

Jae-Sun CHA et al.

Art Unit

2617

Examiner

Pierre Louis DESIR

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒ attorney or agent of record. 51,314  
Registration number \_\_\_\_\_

☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_



Signature

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Typed or printed name

516-228-3565

Telephone number

May 16, 2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S): Jae-Sun CHA et al. ART UNIT: 2617  
APPLICATION NO.: 10/588,248 EXAMINER: Pierre Louis DESIR  
FILING DATE: April 30, 2007 DATED: May 16, 2011  
FOR: **HANDOVER METHOD IN WIRELESS PORTABLE INTERNET  
SYSTEM**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Sir:

In response to the Office Action of the United States Patent and Trademark Office dated February 16, 2011, and the Advisory Action dated May 10, 2011, please consider the following remarks.

**REMARKS**

Claims 20-35 are pending in the application, with Claims 20, 24, 27, 30 and 33 being the independent claims.

The Examiner rejected Claims 20-35 under 35 U.S.C. §103(a) as being unpatentable over “Inter-BS communication for IEEE 802.16e Handoff,” 2003-05-14 to *Koo et al.* (hereinafter, *Koo*).

Regarding the §103(a) rejection of the claims, the Examiner contends that *Koo* teaches, suggests, or renders obvious each and every element of the claims.

Claim 20 recites a method of performing a handover on a subscriber station in a target base station. A ranging request message including a base station identifier of a previous serving base station is received from the subscriber station when a drop situation is detected by the subscriber station. Information of the subscriber station is acquired through the base station identifier of the previous serving base station. A response message on the ranging request message is transmitted to the subscriber station. Network re-entry is performed on the subscriber station.

*Koo* illustrates a hand-over procedure in which a Mobile Subscriber Station (MSS) measures S/R, a serving base station sends a HO-notification to a target base station. The HO-notification includes a sender BS-ID, a target BS-ID, a unique identifier of the MSS, and an estimated time of the handover (see page 5). The subscriber station sends a ranging request to the target base station, and the target base station sends a ranging response to the subscriber station.

The Examiner relates the measurement of S/R at the MSS in *Koo* to the detection of a drop situation at the subscriber station in Claim 1. S/R is undefined in *Koo*, but is assumed to represent a signal to noise ratio in a communication system. The detection of a signal to noise

ratio relates to currently established communication sessions. Accordingly, this measurement is different from the concept of detection, and S/R also differs from a drop situation. Thus, *Koo* fails to disclose the detection of a drop situation by the subscriber station, as recited in Claim 20.

*Koo* fails to provide any disclosure indicating that the ranging request message from the subscriber station includes a base station identifier of a previous serving base station, as recited in Claim 20. In response to previous arguments, the Examiner maintains that “it is obvious for this base station identifier to be included in the ranging request message, because there would be some expectation to also include the serving BS-ID since the target base station would need to map the MS-ID with the serving BS-ID to acquire information related to mobile station so that appropriate services may be rendered to the MS.” Applicants respectfully disagree.

As described above, in *Koo*, the HO-notification from the serving BS provides identifiers of both the serving BS and the MS, as well as an estimated handover time. Accordingly, a mapping of the serving BS and the MS is provided from the serving BS to the target BS with the HO-notification. Therefore, *Koo* would not require a second mapping of the serving BS and the MS when the ranging request is received from the MS. Thus, there would be no expectation to also include a serving BS-ID in the ranging request of *Koo* because such a mapping would be redundant. As such, *Koo* only teaches that the serving BS provides the target BS with its serving BS-ID, and teaches away from the inclusion of a serving BS-ID in the ranging request from the subscriber station.

The present invention allows for network re-entry without the use of any prior HO-notification message (mapping) sent from a serving BS, by including the identifier of the previous BS in the ranging request message sent from the subscriber station to the target BS. This type of network re-entry is applicable when a service is dropped. *Koo* merely teaches that the MSS transmits the MSSHO\_REQ message or the HO\_RSP message to the serving base station after measuring S/R. The serving base station directly transmits its ID to the target BS through the HO-notification message. Accordingly, *Koo* fails to teach, suggest or render obvious the reception of a ranging request message, which includes a base station identifier of a previous

serving base station, at a target base station from a subscriber station when a drop situation is detected by the subscriber station, as recited in Claim 20. Thus, Claim 20 is patentable over *Koo*.

The Examiner also rejected independent Claims 24, 27, 30 and 33 under 35 U.S.C. §103(a). Claims 24, 27, 30 and 33 recite subject matter similar to that of Claim 20. In view of the above, Claims 24, 27, 30 and 33 are also patentable over *Koo*.

Regarding Claims 21-23, 25, 26, 28, 29, 31, 32, 34 and 35, while not conceding the patentability of the dependent claims, *per se*, Claims 21-23, 25, 26, 28, 29, 31, 32, 34 and 35 are also patentable for at least the above reasons. Accordingly, Applicants assert that Claims 20-35 are allowable over *Koo*, and the rejection under 35 U.S.C. §103(a) should be withdrawn.

Accordingly, all of the claims pending in the Application, namely, Claims 20-35 are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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